



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,885	08/10/2004	Brian K. Lorenz	SYB/0103.01	4884

31779 7590 02/27/2007
JOHN A. SMART
708 BLOSSOM HILL RD., #201
LOS GATOS, CA 95032-3503

EXAMINER

KENNEDY, ADRIAN L

ART UNIT	PAPER NUMBER
----------	--------------

2121

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/710,885

Applicant(s)

LORENZ ET AL.

Examiner

Adrian L. Kennedy

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on December 04, 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10,13-29 and 32-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10,13-29 and 32-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/04/06</u> . | 6) <input type="checkbox"/> Other: _____ |

Examiner's Detailed Office Action

1. This Office Action is response to Amendment After Non-Final Rejection filed December 04, 2006.
2. **Claims 1-41** were originally presented.
3. **Claims 11, 12, 30 and 31** were cancelled.
4. **Claims 1, 15, 20 and 41** were amended.
5. **Claims 1-10, 13-29 and 32-41** will be examined.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1-10, 13-29 and 32-41 are rejected under 35 U.S.C. 101 as being directed to nonstatutory subject matter. In particular claims 1-10, 13-29 and 32-41 are considered to be directed to an apparatus, all in accordance with Patent Subject Matter Eligibility Requirements (MPEP 2106 [R-5]).

Claims 1-10, 13-29 and 32-41 do not set forth a "useful, concrete and tangible result". In particular, it is not considered that these claims as a whole set forth a tangible result.

Claims 1-10, 13-29 and 32-41 appear to be an apparatus which performs data manipulations but produces no real world output.

In particular it is unclear from applicant's claimed invention what the intended real world application is, and whether a real world result is produced. It is clear the applicant's invention evaluates a set of rules, but it is not clear what the rules are for (i.e. the real

Art Unit: 2121

world application) and whether the evaluation of said rules produces the result of said evaluation (i.e. the real world result).

Allowable Subject Matter

Claims 1-10, 13-29 and 32-41, which are not rejected under the prior arts, would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 101, set forth in this Office Action.

The following is a statement of reasons for the indication of allowable subject matter:

Claims 1, 15 and 20 are allowable because the prior art of the record fails to teach or fairly suggest in combination with the other elements and features the activation and/or passivation of transducers and logic gates based on the evaluation of input data and weights

The invention of Zahn (USPN 6,535,864) teaches the use of a rules interface for receiving a set of rules (Column 4, L 6-9; "*rule processing*") where each rule has at least one condition (C 5, L 4-6; "*rule conditions*"). Additionally, Zahn teaches a network builder (C 5, L 32-35; "*Rule Editor*"), a runtime evaluation engine (C 5, L 7-9; "*Inference Engine*"), the activation and passivation of links between rules based on changes to input data (C 6, L 22-24 and L 60-63). However, Zahn fails to teach the linking of transducers and logic gates, and the use of said transducers and logic gates as representations of a Boolean Network.

However, Gerstenmaier et al. (USPN 4,475,159) does teach the linking of transducers and logic gates. The examiner cited the book Structure Computer Organization, as the basis of the argument that, "*Hardware and software are logically equivalent.*"

Art Unit: 2121

The examiner asserted that it would have been obvious to combine the invention of Zahn with the invention of Gerstenmaier et al. for the purpose of assuring the delivery of a signal (*Gerstenmaier et al.*; C 4, L 20-24).

The examiner takes the position that because neither of the invention reasonably suggest the activation and passivation of links between transducers and logic gates based on changes to input data, that the claimed invention will be in condition for allowance upon overcoming the rejection(s) under 35 U.S.C. 101.

Response to Arguments

Applicant's arguments filed on December 04, 2006 have been fully considered but they are not persuasive. The unpersuasive arguments made by the Applicant are stated below:

In reference to Applicant's argument:

Applicant has amended independent claims 1, 15 and 20 to include claim limitations of returning results of rule evaluation, thereby overcoming the Section 101 objection.

Examiner's response:

The examiner takes the position that the Applicant's primary argument, is that returning a result of the evaluation constitutes a "useful, concrete and tangible result". The examiner takes the position that a result can be returned from said evaluation without being a real world result. A non-limiting example of this, is a teaching of an evaluator producing an output, where there is no teaching of where the output terminates. Additionally, without teaching how the output is

Art Unit: 2121

used, the output does constitute "useful" result. To this end, the examiner has presented more specific arguments regarding the lack of patentability under 35 U.S.C. 101, as set forth above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Harik et al. (USPubN 2004/0068697) is cited for his method and apparatus for characterizing documents based on clusters of related words. Keats (USPN 4,048,483) is cited for his data handling systems. Rostoker et al. (USPN 6,470,482) is cited for his method and system for creating, deriving and validating structural description of electronic system from higher level, behavior-oriented description including interactive schematic design and simulation. Chan (USPN 7,065,745) is cited for his system and method for evaluating and executing hierarchies of rules. Keeler et al. (USPN 6,363,289) is cited for his residual activation neural network. Chan (USPubN 2004/0117765) is cited for his system and method for evaluating and executing hierarchies of rules. Szabo (USPN 6,326,962 and USPN 5,966,123) is cited for his graphic user interface for a database system. Whitaker et al. (USPN 2003/0126579) is cited for his method of digital design using selection operations. Whitaker et al. (USPN 6,993,731) is cited for his method of optimization of digital designs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adrian L. Kennedy whose telephone number is (571) 270-1505. The examiner can normally be reached on Mon -Fri 8:30am-5pm.

Art Unit: 2121

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on (571) 272-3687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ALK



Anthony Knight
Supervisory Patent Examiner
Technology Center 2100